

- Actions that are under consideration in the event the U.S. Nuclear Regulatory Commission grants a license for the site. DOE would continue to evaluate these potential additional commitments. The analyses in the EIS do not take credit for these mitigations that may be decided on in the future.

In addition, DOE continues to evaluate additional measures to improve the long-term performance of the repository and to reduce uncertainties in estimates of performance. These measures include barriers to limit releases and transport of radionuclides, measures to control heat and moisture in the underground, and various designs to support operational considerations.

S.10 Unavoidable Adverse Impacts; Short-Term Uses and Long-Term Productivity; and Irreversible or Irretrievable Commitments of Resources

The construction, operation and monitoring, and eventual closure of the proposed Yucca Mountain Repository and the associated transportation of spent nuclear fuel and high-level radioactive waste would have the potential to produce some environmental impacts that DOE could not completely mitigate. Similarly, some aspects of the Proposed Action could affect the long-term productivity of the environment or would require the permanent use of some resources. For example:

- The permanent withdrawal of approximately 600 square kilometers (230 square miles) of land for the repository would be likely to prevent human use of the withdrawn lands for other purposes.
- Death or displacement of individual members of some animal species, including the desert tortoise, as a result of site clearing and vehicle traffic would be unavoidable.
- Injuries to workers or worker fatalities could result from facility construction, including accidents.
- Transportation of spent nuclear fuel and high-level radioactive waste would have the potential to affect workers and the public through exposure to radiation and vehicle emissions, and through traffic accidents.

Further, in the view of the Native American tribes in the Yucca Mountain region, the implementation of the proposed repository and its facilities would further degrade the environmental setting. Even after closure and reclamation, the presence of the repository would, from the perspective of Native Americans, result in an irreversible impact to traditional lands.

In addition, the Proposed Action would involve the following commitments of resources:

- Electric power, fossil fuels, and construction materials would be irreversibly committed to the project.
- DOE would use fossil fuel from the nationwide supply system to transport spent nuclear fuel and high-level radioactive waste to the repository.

S.11 Statutory and Other Applicable Requirements

Several statutes and regulations would apply to the licensing, development, operation, and closure of a geologic repository. These include the NWPAA; the National Environmental Policy Act; the Atomic Energy Act; the Federal Land Policy and Management Act of 1976; site-specific public health and environmental radiation protection standards established by the Environmental Protection Agency; site-specific technical licensing regulations established by the Nuclear Regulatory Commission; and site